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EXAMINER

CHEN, PO WEI

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 9

Application Number: 10/003,840  
Filing Date: November 01, 2001  
Appellant(s): MILCH ET AL.

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Andrew J. Anderson  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed March 31, 2004.

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**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

Appellant's brief includes a statement that claims stand or fall as single groups with respect to each of identified rejections.

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

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6,400,371	Helman et al.	6-2002
2002/0018060	Yamazaki et al.	2-2002
6,535,985	Oshima et al.	3-2003
2002/0196257	Paolini et al.	12-2002
5,248,963	Yasui et al.	9-1993
2001/0012005	Choi	8-2001
6,320,587	Funyu	11-2001

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

**(11)** The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**(12)** Claims 1-2, 4, 7-8, 15-16, 20, 23-24, 26, 29-30, 37-38 and 42 are rejected under 35

U.S.C. 103(a) as being unpatentable over Reinhardt (US 5,598,565) and further in view of Helman et al. (US 6,400,371; refer to as Helman herein).

Regarding claim 1, Reinhardt discloses a method for screen power saving comprising:

A method for reducing the power used by a display device having light emitting pixels

(see lines 37-47 of column 1);

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a) receiving formatted information for presentation on the display device (see 12-21 of column 5 and Fig. 3a). While claim recites receiving formatted information, it is clear in the example disclosed by Reinhardt, the formatted image is received by the display device in order for it to be displayed;

b) modifying the formatted information to reduce the number and/or intensity of bright pixels in a display of the formatted information to produce modified formatted information (see lines 10-14 of column 4 and lines 22-32 of column 5 and Fig. 3a). While claim recites reduce the number and/or intensity of bright pixels, it is clear that the power management system is capable of controlling amount of power to each individual pixel. Therefore, by removing or reduce the amount of power to pixels will reduce the number and/or intensity of bright pixels;

c) rendering the modified formatted information; d) displaying the rendered modified formatted information on the display device (see lines 25-30 of column 5 and Fig. 3a);

Reinhardt does not disclose the formatted information being defined by a markup language having tags and parameters associated with the tags and tags and/or the parameters associated with the tags are modified. Helman teaches a television signal chrominance adjustment method and system utilizing the method (see lines 51-58 of column 4 and lines 15-25 of column 5; it is very well-known in the art to utilize parameters in HTML tags to modify web pages and the tags can be specified or modified by document author). It would have been obvious to one of ordinary skill in the art to utilize the teaching of Helman to provide an improved method and system for presenting color television signal by minimizing display

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artifacts while preserving the relative visual contrast between foreground and background (lines 46-55 of column 1, Helman).

Regarding claim 2, Reinhardt discloses a method for screen power saving comprising:

The display device is a portable emissive flat-panel display (see lines 37-47 of column 1).

Regarding claim 4, Reinhardt discloses a method for screen power saving comprising:

The information includes text formatted with characters presented on a background (see lines 20-37 of column 6 and Fig. 4a).

Regarding claim 7 and 8, Reinhardt discloses a method for screen power saving comprising:

The information modification includes modifying the brightness of the text background and the brightness of the text (see lines 20-37 of column 6 and Fig. 4a). It is clear that by increasing power in the selected area (a set of important pixels) and reducing power for the remaining pixels, text and background will have different brightness depending on the location of the selected area.

Regarding claim 15, Reinhardt discloses a method for screen power saving comprising:

The information includes one or more graphic elements (lines 3-5 of abstract).

Regarding claim 16, Reinhardt discloses a method for screen power saving comprising:

The modification includes modifying the brightness of the one or more of the graphic elements (lines 3-5 of abstract; reducing power will change the brightness of the pixels).

Regarding claim 20, Reinhardt discloses a method for screen power saving comprising:

The modification is user selectable (see lines 24-28 of column 5 and Fig. 4a).

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Regarding claims 23-24, 26, 29-30, 37-38 and 42, statements presented above, with respect to claims 1-2, 4, 7-8, 15-16 and 20 are incorporated herein.

(13) Claims 3 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reinhardt (US 5,598,565) and Helman et al. (US 6,400,371; refer to as Helman herein) as applied to claims 1 and 23 above, and further in view of Yamazaki et al. (US 2002/018060; refer to as Yamazaki herein).

Regarding claim 3, the combination of Reinhardt and Helman does not disclose the display device is an OLED display device. However, this is known in the art taught by Yamazaki. Yamazaki teaches a display device that utilize a OLED display (see paragraph 0004). It would have been obvious to one of ordinary skill in the art at the time of invention to utilize the teaching of Yamazaki to provide the advantage of reducing power consumed by the display (see abstract of Yamazaki), which is the same functionality as Reinhardt disclosed.

Regarding claim 25, statements presented above, with respect to claim 3 are incorporated herein.

(14) Claims 5-6 and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reinhardt (US 5,598,565) and Helman et al. (US 6,400,371; refer to as Helman herein) as applied to claims 1 and 23 above, and further in view of Oshima et al. (US 6,535,985; refer to as Oshima herein).

Regarding claim 5, Reinhardt discloses a method for screen power saving comprising:

The information includes dark text on a light background (see Fig. 4a). The combination of Reinhardt and Helman does not disclose format modification is the reversal of the brightness of the text and the background. However, this is known in the art taught by Oshima. Oshima

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teaches a data processing with a display for power consumption reduction that “when a key data input is given, a corresponding character is displayed in the reverse color as shown in FIG. 14-b” (see lines 47-49 and lines 61-64 of column 13 and Fig. 11b and 14a-h). While claim recites reversal of brightness, it is clear that by reversing the white/black of the displayed characters will reverse the brightness of the text and its background. It would have been obvious to one of ordinary skill in the art at the time of invention to utilize the teaching of Oshima to provide the advantage of reducing energy consumption, which is the same functionality as Reinhardt disclosed.

Regarding claim 6, it is noted that the combination of Reinhardt and Helman does not disclose the information modification is the reversal of the color of the text and the background. However, this is known in the art taught by Oshima. Oshima teaches a data processing with a display for power consumption reduction that “when a key data input is given, a corresponding character is displayed in the reverse color as shown in FIG. 14-b” (see lines 61-64 of column 13 and Fig. 11b and 14a-h).

Regarding claims 27-28, statements presented above, with respect to claims 5-6 are incorporated herein.

(15) Claims 9, 11, 17, 31, 33 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reinhardt (US 5,598,565) and Helman et al. (US 6,400,371; refer to as Helman herein) as applied to claims 1 and 23 above, and further in view of Yamazuki et al. (US 20020018060; refer to as Yamazuki herein).

Regarding claim 9, Reinhardt discloses a method for screen power saving comprising:

The display is a color display (lines 6-9 of column 4).



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The combination of Reinhardt and Helman does not disclose display of some colors consumes less power than the display of other colors and the modification includes modifying the color of the text background. Yamazaki teaches a display device that "by displaying white color characters in a black color background, the display portion 2604 can suppress the power consumption of the portable telephone (paragraph 0240 of page 15). It would have been obvious to one of ordinary skill in the art to utilize the teaching of Yamazaki to provide a picture of vivid colors maintaining a good balance with less consumption of power used (paragraph 0032 and 0039).

Regarding claim 11, statements presented above, with respect to claim 9 are incorporated herein.

Regarding claim 17, statements presented above, with respect to claim 9 are incorporated herein. Also see Fig. 14a of Yamazaki.

Regarding claims 31, 33 and 39, statements presented above, with respect to claims 9, 11 and 17 are incorporated herein.

**(16)** Claims 10 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reinhardt (US 5,598,565) and Helman et al. (US 6,400,371; refer to as Helman herein) as applied to claims 1 and 23 above, and further in view of Yamazaki et al. (US 20020018060; refer to as Yamazaki herein) and Oshima et al. (US 6,535,985; refer to as Oshima herein).

Regarding claim 10, statements presented above, with respect to claim 6 are incorporated herein.

Regarding claim 32, statements presented above, with respect to claim 10 are incorporated herein.

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(17) Claims 12, 14, 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reinhardt (US 5,598,565) and Helman et al. (US 6,400,371; refer to as Helman herein) as applied to claims 1 and 23 above, and further in view of Paolini et al. (US 20020196257; refer to as Paolini herein).

Regarding claim 12, it is noted that the combination of Reinhardt and Helman does not disclose the modification includes modifying the thickness of the text characters. Paolini teaches a method for text creation that modifies the thickness of the text characters (see paragraph 0041 and Fig. 1; bolding a text character will change the thickness of the character). It would have been obvious to one of ordinary skill in the art to utilize the teaching of Paolini to provide the user the text with good legibility.

Regarding claim 14, it is noted that the combination of Reinhardt and Helman does not disclose the modification includes changing dark normal text on a light background to bold text. Paolini teaches a method for text creation that modifies the thickness of the text characters (see paragraph 0041 and Fig. 1). It would have been obvious to one of ordinary skill in the art to utilize the teaching of Paolini to provide the user the text with good legibility.

Regarding claims 34 and 36, statements presented above, with respect to claims 12 and 14 are incorporated herein.

(18) Claims 13 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reinhardt (US 5,598,565) and Helman et al. (US 6,400,371; refer to as Helman herein) as applied to claims 1 and 23 above, and further in view of Yamazuki et al. (US 20020018060; refer to as Yamazuki herein) and Paolini et al. (US 20020196257; refer to as Paolini herein).

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Regarding claim 13, it is noted that the combination of Reinhardt and Helman does not disclose the modification includes changing light text on a dark background. Yamazaki teaches a display device that "by displaying white color characters in a black color background, the display portion 2604 can suppress the power consumption of the portable telephone (paragraph 0240 of page 15). It would have been obvious to one of ordinary skill in the art to utilize the teaching of Yamazaki to provide a picture of vivid colors maintaining a good balance with less consumption of power used (paragraph 0032 and 0039). Furthermore, the combination of Reinhardt and Yamazaki does not disclose changing the bold text to normal. Paolini teaches a method for text creation that modifies the thickness and style of the text characters (see paragraph 0041 and Fig. 1). It would have been obvious to one of ordinary skill in the art to utilize the teaching of Paolini to provide the user the text with good legibility.

Regarding claim 35, statements presented above, with respect to claim 13 are incorporated herein.

(19) Claims 18, 40, 45, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reinhardt (US 5,598,565) and Helman et al. (US 6,400,371; refer to as Helman herein) as applied to claims 1 and 23 above, and further in view of Yasui et al. (US 5,248,963; refer to as Yasui herein).

Regarding claim 18, the combination of Reinhardt and Helman does not disclose binarizing the one or more graphic elements. Yasui discloses a method for erasing liquid display comprising "pixel data (a binary code representing logic '1' or '0') (lines 34-37 of column 1). It would have been obvious to one of ordinary skill in the art to utilize the teaching of Yasui to provide a way to clear the display in a shorter time.

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Regarding claim 45, statement presented above, with respect to claim 18 are incorporated herein. Furthermore, it is noted that the text characters and background are displayed by pixels of the display. Thus, if pixel data are in binary, the text characters and background will also be in binary data.

Regarding claims 40 and 46, statements presented above, with respect to claims 18 and 45 are incorporated herein.

**(20)** Claims 19 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reinhardt (US 5,598,565) and Helman et al. (US 6,400,371; refer to as Helman herein) as applied to claims 1 and 23 above, and further in view of Choi (US 20010012005).

Regarding claim 19, the combination of Reinhardt and Helman does not disclose the modification includes removing one or more of the graphic elements. Choi teaches a power saving circuit for display that "the recorded data of the pixels must be all deleted for a next sub-frame" (paragraph 0012 of page 1). It would have been obvious to one of ordinary skill in the art to utilize the teaching of Choi to provide a power saving circuit for display (paragraph 0002 of page 1). Also, both Choi and Reinhardt are directed to a method for saving power consumed by display.

Regarding claim 41, statements presented above, with respect to claim 19 are incorporated herein.

**(21)** Claims 22 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reinhardt (US 5,598,565) and Helman et al. (US 6,400,371; refer to as Helman herein) as applied to claims 1 and 23 above, and further in view of Funyu (US 6,320,587).

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Regarding claim 22, the combination of Reinhardt and Helman does not disclose the information format is described in hypertext markup language (html). Funyu discloses a font processing in network environment that “the data of the home page has the format of an HTML document written in HTML (Hyper Text Markup Language)” (lines 4-8 of column 3). It would have been obvious to one of ordinary skill in the art to utilize the teaching of Funyu to provide the advantage of display various fonts regardless the font resources (lines 12-16 of column 4, Funyu).

Regarding claim 44, statements presented above, with respect to claims 22 are incorporated herein.

**(22) Response to Argument**

Appellant argues that references Reinhardt and Helman do not teach or suggest modifying the tags and/or the parameters associated with the tags of formatted information defined by a markup language to achieve power savings in a display of the formatted information on a display device.

In response, the Examiner notes the claim makes no reference to using the modification of tags for power savings. The Examiner agrees the preamble states “reducing the power used by a display device”, but the claims make no correlation of how the tags and/or the parameters associated with the tags of the formatted information to reduce the number and/or intensity of bright pixels in a display will result in a reduction in power. The recitation of reducing the power used has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend

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on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Appellant also states that references do not teach or suggest modifying the tags and/or the parameters associated with the tags of markup language formatted information to reduce the number and/or intensity of bright pixels in a display of the formatted information.

Reinhardt teaches a method for screen power saving by reducing power to a subset of displaying pixels according to the user (lines 10-14 of column 4 and lines 12-32 of column 5 and Fig. 3a). Reinhardt teaches allowing each individual software program to determine which pixels are important to the user and which pixels are not as important (lines 3-6 of column 5). Reinhardt does not disclose modifying the tags and/or the parameters associated with the tags of formatted information defined by a markup language. Helman discloses modifying tags and/or the parameters associated with the tags of formatted information defined by a markup language in a television signal chrominance adjustment method (lines 57-67 of column 2 and lines 8-12 and 51-58 of column 4). Helman teaches the foreground color is modified such that the difference between the foreground luminance  $Y_f$  and background luminance  $Y_b$  is increased by the same scaling factor used to reduce the chrominance (lines 51-58 of column 4 and lines 15-25 of column 5). The scaling of luminance/chrominance affects the power consumption levels of display. By reducing the luminance/chrominance, the intensity of bright pixels must be reduced. This results in a reduction power to be achieved. Helman further teaches the setting of colors has advantages in visual clarity, as it allows the manufacturer to set colors which minimize artifacts between foreground and background colors (lines 35-38 of column 4). A minimization of

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artifacts will result in reducing the number of bright pixels. Artifacts are well known in the graphic arts as unwanted added noise. It would have been obvious to one of ordinary skill in the art to utilize the teaching of Helman to provide an improved method and system for presenting color television signal by minimizing display artifacts while preserving the relative visual contrast between foreground and background (lines 46-55 of column 1, Helman).

Appellant further argues that the combination of Reinhardt and Helman would suggest the modification of tag information to minimizing display artifacts while preserving the relative visual contrast between foreground and background and does not teach or suggest the claimed invention. The Examiner disagrees because by minimizing the display artifacts will reduce the noise produced by the display. Thus, the power used by the display will also be reduced.

As to the combination of Reinhardt and Helman, it is noted that an image such as one disclosed by Reinhardt (Fig. 5) can be defined by HTML code to set attributes such as color and size. It is very well-known in the art to utilize parameters in HTML tags to modify web pages and the tags can be specified or modified by document author to define desired displaying image attributes such as color or size. Thus it would be obvious to one of ordinary skill in the art at the time of invention to utilize the teaching of Helman to make change to the image such as one disclosed by Reinhardt to achieve power reduction by modifying the tags and/or the parameters defined by a markup language.

For the above reasons, it is believed that the rejections should be sustained.

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Respectfully submitted,

Po-Wei (Dennis) Chen  
Examiner  
Art Unit 2676

P.W.C.

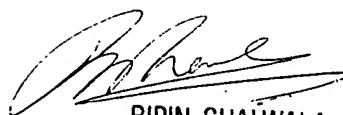
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